

*B16*

process, print resist process, or the like, by which an overall-formed coating is patterned into the configuration of spacers. The spacers, although not limited in configuration particularly, are desirably of the same configuration and arrayed at fixed intervals so as to eliminate any input-disabled portions and to enable uniform inputs. When the spacers are formed in a dot-like shape, the spacers are desirably made small in diameter and low in height. As an example, an arrangement pattern in which spacers having a diameter of 30 - 100  $\mu\text{m}$  and a height of 1 - 15  $\mu\text{m}$  with a spacer pitch of 0.1 - 10 mm fall upon intersecting points of a plurality of lines crossing one another longitudinally and laterally can be obtained by rotating the pattern to 0 - 90° with respect to one side line of the touch panel 1.

*B16*

**Please replace the paragraph beginning at page 72, line 7, with the following rewritten paragraph:**

*B16*

In the figures, reference numeral 22 denotes a transparent film, 23 denotes a low reflection process layer, 24 denotes an antifouling process layer, and 25 denotes a hard coat process layer.

*B21*

**IN THE CLAIMS:**

**Please cancel claims 1-26 and add new claims 27-52 as follows:**

27. (New) A touch-input type liquid crystal display device comprising:  
an upper polarizer;  
a lower polarizer;  
a transparent touch panel disposed between said upper polarizer and said lower polarizer, said transparent touch panel comprising an upper optical phase difference film, a movable electrode portion, a stationary electrode portion and a lower optical phase difference film; and  
a liquid crystal display,  
wherein a space is interposed between said upper optical phase difference film and said lower optical phase difference film,  
wherein said transparent touch panel is disposed between said upper polarizer and said liquid crystal display,

*B21*  
*CW*

wherein said liquid crystal display is disposed between said transparent touch panel and said lower polarizer,

wherein said upper optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within a visible region,

wherein said movable electrode portion is disposed on a lower surface of said upper optical phase difference film,

wherein said lower optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within the visible region,

wherein said stationary electrode portion is disposed on an upper surface of said lower optical phase difference film,

wherein an angle formed by an optical axis of said upper optical phase difference film and a polarization axis of said upper polarizer is about 45 °,

wherein an angle formed by an optical axis of said lower optical phase difference film and linearly polarized light to be outputted from said liquid crystal display is about 45 °,

wherein an angle formed by the optical axis of said upper optical phase difference film and the optical axis of said lower optical phase difference film is about 90 °, and

wherein an angle formed by the polarization axis of said upper polarizer and linearly polarized light to be outputted from said liquid crystal display is about 90 °.

28. (New) The touch-input type liquid crystal display device of claim 27, wherein said stationary electrode portion is disposed directly on an upper surface of said lower optical phase difference film

29. (New) The touch-input type liquid crystal display device of claim 28, wherein both said upper optical phase difference film and said lower optical phase difference film have a thermal deformation temperature of not less than 150 °C.

*B21*  
*com*

30. (New) The touch-input type liquid crystal display device of claim 28, wherein both said upper optical phase difference film and said lower optical phase difference film have a thermal deformation temperature of not less than 170°C.

31. (New) The touch-input type liquid crystal display device of claim 27, wherein a glass substrate having optical isotropy is disposed between the stationary electrode portion and the lower optical phase difference film, and the stationary electrode portion is formed directly on the glass substrate having optical isotropy.

32. (New) The touch-input type liquid crystal display device of claim 31, wherein said upper optical phase difference film has a thermal deformation temperature of not less than 150°C.

33. (New) The touch-input type liquid crystal display device of claim 31, wherein said upper optical phase difference film has a thermal deformation temperature of not less than 170°C.

34. (New) The touch-input type liquid crystal display device of claim 27, wherein an optically isotropic film is disposed between the stationary electrode portion and the lower optical phase difference film, and the stationary electrode portion is formed directly on the optically isotropic film.

35. (New) The touch-input type liquid crystal display device of claim 34, wherein both said upper optical phase difference film and said optically isotropic film have a thermal deformation temperature of not less than 150°C.

36. (New) The touch-input type liquid crystal display device of claim 34, wherein both said upper optical phase difference film and said optically isotropic film have a thermal deformation temperature of not less than 170°C.

*B21  
com*

37. (New) The touch-input type liquid crystal display device of claim 34, further comprising a transparent resin plate having optical isotropy disposed between said optically isotropic film and said lower optical phase difference film.

38. (New) The touch-input type liquid crystal display device of claim 27, further comprising a transparent resin plate having optical isotropy disposed between said transparent touch panel and said liquid crystal display.

39. (New) The touch-input type liquid crystal display device of claim 27, wherein a thickness of said upper optical phase difference film is not less than 50  $\mu\text{m}$  and not more than 150  $\mu\text{m}$ .

40. (New) The touch-input type liquid crystal display device of claim 27, further comprising a transparent adhesive layer or a transparent re-peel sheet adhesively bonding overall one of a stationary electrode portion-directly-formed member on which said stationary electrode portion has been directly formed and said liquid crystal display or all of said stationary electrode portion-directly-formed member, the liquid crystal display and a member disposed between the stationary electrode portion-directly-formed member and the liquid crystal display.

41. (New) The touch-input type liquid crystal display device of claim 27, further comprising a transparent film low in moisture permeability and superior in dimensional stability laminated on an upper surface of said upper polarizer.

42. (New) The touch-input type liquid crystal display device of claim 41, further comprising a low-reflection processed layer on an upper surface of said transparent film.

43. (New) The touch-input type liquid crystal display device of claim 41, further comprising an antifouling processed layer on an upper surface of said transparent film.

*b21*  
*Cm X*

44. (New) The touch-input type liquid crystal display device of claim 41, further comprising a hard coat processed layer on an upper surface of said transparent film.

45. (New) A method of fabricating a touch-input type liquid crystal display device comprising an upper polarizer, a lower polarizer a transparent touch panel disposed between the upper polarizer and the lower polarizer and a liquid crystal display, the transparent touch panel comprising an upper optical phase difference film, a movable electrode portion, a stationary electrode portion, a lower optical phase difference film and a space interposed between the upper optical phase difference film and the lower optical phase difference film, the transparent touch panel is disposed between the upper polarizer and the liquid crystal display, the liquid crystal display is disposed between the transparent touch panel and the lower polarizer, the upper optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within a visible region, the movable electrode portion is disposed on a lower surface of the upper optical phase difference film, the lower optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within the visible region, the stationary electrode portion is disposed on an upper surface of the lower optical phase difference film, an angle formed by an optical axis of the upper optical phase difference film and a polarization axis of the upper polarizer is about 45 °, an angle formed by an optical axis of the lower optical phase difference film and linearly polarized light to be outputted from said liquid crystal display is about 45 °, an angle formed by the optical axis of the upper optical phase difference film and the optical axis of the lower optical phase difference film is about 90 °, and an angle formed by the polarization axis of the upper polarizer and linearly polarized light to be outputted from said liquid crystal display is about 90 °, said method comprising:

forming a movable-side sheet by heat treating the upper optical phase difference film to remove residual solvents therefrom, forming a transparent electrically conductive film directly on the upper optical phase difference film, heat treating the upper optical phase difference film having the transparent electrically conductive film formed thereon to reduce dimensional errors involved a formation of leads, forming leads on the upper optical phase difference film via a first ink binder and

*B2/*  
*cont*

heat treating the upper optical phase difference film having the transparent electrically conductive film and leads formed thereon to cure the first ink binder and to remove solvents therefrom;

forming a stationary-side sheet by heat treating the lower optical phase difference film to remove residual solvents therefrom, forming a transparent electrically conductive film, for the stationary electrode portion, directly on the lower optical phase difference film, heat treating the lower optical phase difference film having the transparent electrically conductive film formed thereon to reduce dimensional errors involved a formation of leads, forming leads of the stationary electrode portion on the lower optical phase difference film via a second ink binder and heat treating the upper optical phase difference film having the transparent electrically conductive film and leads formed thereon to cure the second ink binder and to remove solvents therefrom;

laminating together the movable-side sheet and the stationary-side sheet;

laminating the upper polarizer on an upper surface of the upper optical phase difference film;

performing a pressure degassing process on the upper polarizer laminated on the upper optical phase difference film; and

laminating together the stationary-side sheet with the liquid crystal display.

46. (New) The method of claim 45, wherein said heat treating the upper optical phase difference film to remove residual solvents therefrom and said heat treating the lower optical phase difference film to remove residual solvents therefrom are performed at a temperature of not less than 150°C.

47. (New) The method of claim 45, wherein said heat treating the upper optical phase difference film to reduce dimensional errors therefrom and said heat treating the lower optical phase difference film to reduce dimensional errors therefrom are performed at a temperature of not less than 100°C and less than 130°C.

48. (New) The method of claim 45, wherein said heat treating the upper optical phase difference film to cure the binder of the ink with which the leads have been formed and to remove the solvents of the ink therefrom and said heat treating the lower optical phase difference film to cure the

binder of the ink with which the leads have been formed and to remove the solvents of the ink therefrom are performed at a temperature of not less than 100°C and less than 150°C.

49. (New) The method of claim 45, wherein said performing the pressure degassing process is performed at 40 - 80°C and 4 - 9 kg/cm<sup>2</sup> for 10 - 120 minutes.

50. (New) The method of claim 45, further comprising:  
B21  
Cmt  
preparatorily providing electrode-routed portions in either one of the movable electrode portion and the stationary electrode portion;  
laminating together the movable-side sheet and the stationary-side sheet; and  
pressing the electrode-routed portions against and adhering to a connector via an anisotropic conductive adhesive at a temperature of not less than 120°C and less than 170°C.

51. (New) A method of fabricating a touch-input type liquid crystal display device comprising an upper polarizer, a lower polarizer a transparent touch panel disposed between the upper polarizer and the lower polarizer and a liquid crystal display, the transparent touch panel comprising an upper optical phase difference film, a movable electrode portion, a stationary electrode portion, a lower optical phase difference film and a space interposed between the upper optical phase difference film and the lower optical phase difference film, the transparent touch panel is disposed between the upper polarizer and the liquid crystal display, the liquid crystal display is disposed between the transparent touch panel and the lower polarizer, the upper optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within a visible region, the movable electrode portion is disposed on a lower surface of the upper optical phase difference film, the lower optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within the visible region, the stationary electrode portion is disposed on an upper surface of the lower optical phase difference film, an angle formed by an optical axis of the upper optical phase difference film and a polarization axis of the upper polarizer is about 45°, an angle formed by an optical axis of the lower

*b2  
cmt*

display is about 45°, an angle formed by the optical axis of the upper optical phase difference film and the optical axis of the lower optical phase difference film is about 90°, and an angle formed by the polarization axis of the upper polarizer and linearly polarized light to be outputted from said liquid crystal display is about 90°, said method comprising:

forming a movable-side sheet by heat treating the upper optical phase difference film to remove residual solvents therefrom, forming a transparent electrically conductive film directly on the upper optical phase difference film, heat treating the upper optical phase difference film having the transparent electrically conductive film formed thereon to reduce dimensional errors involved a formation of leads, forming leads on the upper optical phase difference film via a first ink binder and heat treating the upper optical phase difference film having the transparent electrically conductive film and leads formed thereon to cure the first ink binder and to remove solvents therefrom;

forming a stationary-side sheet by forming a transparent electrically conductive film, for the stationary electrode portion, directly on a glass substrate having optical isotropy, forming leads of the stationary electrode portion via a second ink binder and heat treating the glass substrate having the transparent electrically conductive film and leads formed thereon to cure the second ink binder and to remove solvents therefrom;

laminating together the movable-side sheet and the stationary-side sheet;

laminating the upper polarizer on an upper surface of the upper optical phase difference film;

performing a pressure degassing process on the upper polarizer laminated on the upper optical phase difference film; and

laminating together the stationary-side sheet with the liquid crystal display with the lower optical phase difference film interposed therebetween.

52. (New) A method of fabricating a touch-input type liquid crystal display device comprising an upper polarizer, a lower polarizer a transparent touch panel disposed between the upper polarizer and the lower polarizer and a liquid crystal display, the transparent touch panel comprising an upper optical phase difference film, a movable electrode portion, a stationary electrode portion, a lower optical phase difference film and a space interposed between the upper optical phase difference film and the lower optical phase difference film, the transparent touch panel is disposed

*B21  
cont*

between the upper polarizer and the liquid crystal display, the liquid crystal display is disposed between the transparent touch panel and the lower polarizer, the upper optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within a visible region, the movable electrode portion is disposed on a lower surface of the upper optical phase difference film, the lower optical phase difference film is capable of providing a 1/4 wavelength phase delay to light, incident thereon, having a center wavelength within the visible region, the stationary electrode portion is disposed on an upper surface of the lower optical phase difference film, an angle formed by an optical axis of the upper optical phase difference film and a polarization axis of the upper polarizer is about 45 °, an angle formed by an optical axis of the lower optical phase difference film and linearly polarized light to be outputted from said liquid crystal dispaly is about 45 °, an angle formed by the optical axis of the upper optical phase difference film and the optical axis of the lower optical phase difference film is about 90 °, and an angle formed by the polarization axis of the upper polarizer and linearly polarized light to be outputted from said liquid crystal display is about 90 °, said method comprising:

forming a movable-side sheet by heat treating the upper optical phase difference film to remove residual solvents therefrom, forming a transparent electrically conductive film directly on the upper optical phase difference film, heat treating the upper optical phase difference film having the transparent electrically conductive film formed thereon to reduce dimensional errors involved a formation of leads, forming leads on the upper optical phase difference film via a first ink binder and heat treating the upper optical phase difference film having the transparent electrically conductive film and leads formed thereon to cure the first ink binder and to remove solvents therefrom;

forming a stationary-side sheet by heat treating an optically isotropic film to remove residual solvents therefrom, forming a transparent electrically conductive film directly on the optically isotropic film, heat treating the transparent electrically conductive film to reduce dimensional errors involved a formation of leads, forming leads on the transparent electrically conductive film via a second ink binder and heat treating the transparent electrically conductive film having leads formed thereon to cure the second ink binder and to remove solvents therefrom;

laminating together the movable-side sheet and the stationary-side sheet;

laminating the upper polarizer on an upper surface of the upper optical phase difference film;